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Do the Framing Effect Occur in the Investment Decision Based on Tabular Format Information Risk: A Fuzzy-Trace Theory Framework?

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Abstract: *This study tests on investment decisions based on risk information within the framework of verification Fuzzy Trace Theory (FTT). FTT assumes individuals prefer to use the simple reason that in the presentation of information and make a decision. An experiment which involved 27 participants was conducted. The experiments carried out to test whether the risk information of different frame-sequential time given concerning the framing effect described through the framework of FTT-can affects investment decision-making process. The results showed that the participants in this study chose to perform actions that are not at risk when information is presented in a positive frame. Investment decisions which they set such decisions tend to avoid risk. This is consistent with FTT are focusing testing on the frame problem. Other findings obtained in this study in the form of the tendency of the experimental participants to take risky decisions when information is presented in a negative frame.*

Keywords: *Experiment, Fuzzy-Trace Theory, Risk information, Tabular Format.*

Abstrak: *Penelitian ini berutjuan untuk menguji keputusan investasi berbasis risiko dalam kerangka Fuzzy Trace Theory (FTT). FTT mengasumsikan bahwa seseorang memiliki preferensi untuk menggunakan informasi yang ditamilkan dalam bentuk yang sederhana dalam membuat sebuah keputusan. Penelitian ini merupakan penelitian eksperimen yang melibatkan 27 orang partisipan. Eksperimen yang dilakukan menguji apakah informasi risiko yang dibingkai secara berbeda dan disampaikan dalam waktu yang berurutan dalam kerangka FTT akan mempengaruhi proses pembuatan keputusan investasi Hasil penelitian menunjukkan bahwa partisipa dalam penelitian ini memilih untuk mengambil keputusan yang tidak berisiko bila informasi disampaikan dalam frame yang positif. Hasil lain yang diperoleh dalam penelitian ini adalah bahwa seseorang cenderung untuk mengambil keputusan yang berisiko apabila informasi disampaikan dalam frame yang negatif.*

Keywords*: Experiment, Fuzzy-Trace Theory, Informasi Risiko, Format Tabular*

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1. Introduction

Capital market use information for the trading mechanism. The financial information in the capital market became one of the bases for investment decisions. Information risk can benefit investors in two ways. Investors can use the report to revise or confirm the risk of their expectations regarding corporate disclosure relating to interest rates, foreign currency exchange rates and changes in commodity prices. Investors also can assess the impact of risk sensitivity reports or stock price changes that occur at any time after the information in the financial statements published risk (Rajgopal, 1999; Roulstone, 1999; Linsmeier et al., 2002, Putri et al., 2012). Information on risks is also to be considered to reduce bias in the determination of stock prices. Explicit disclosure made by management is one of the best estimators for the uncertainty in the market and be able to reduce the bias on the rise in the price of securities (Dietrich et al., 2001).

This study tests on investment decisions based on risk information within the framework of verification Fuzzy Trace Theory (FTT). FTT assumes individuals prefer to use the simple reason that in the presentation of information and make a decision of the general conclusions presented (Reyna and Brainerd, 1991). A piece of information had the same meaning but presented differently would raise the possibility of deciding to produce a reversal option. FTT can be used to explain the framing effects in the context of managerial accounting decisions and test power to describe the impact. Framing effect is a form of information delivery with a few different ways, to a situation or a similar problem, as well as the resulting representation and decision-makers, formulate a different response to each issue presented in various ways. Framing effect occurs when information is given to contain risks (Kahneman and Tversky, 1979; Tversky and Kahneman, 1981). Framing effects in the framework of FTT are shown by the options presented in the form of incomplete information. It provides a space for decision-makers to determine other variables that have the potential relevance to the problem, which often occurs in the field of accounting. FTT stated that the framing effect occurs only in a gain positive and negative loss frame (Chang et al., 2002).

This study is different from previous studies because it is done in the context of the Indonesian capital market environment, which has the nature of capital markets and environmental conditions that are different from other capital markets. The difference is one of them occurred in the availability of accounting information, particularly concerning market risk quantitatively. It is expected to affect the investment decision-making process in Indonesia. Therefore, this study has the primary objective of testing the FTT as a form of explanation of framing effects in the context of the delivery of risk information in different formats.

This research was conducted with the experimental method. The aim was to test whether different risk information formats, given in consecutive time related to the framing effect described through the framework of FTT, can affect the investment decision-making process. The experimental method was chosen because the technique has the power to demonstrate a causal relationship between the study variables. This method also allows researchers to manipulate the independent variables and observing their impact on the dependent variable while controlling for other factors (Nahartyo, 2012). The technique is also capable of combining the strengths of the external validity of the representation of a public opinion survey by the power of internal validity in the decision process. The combination can produce more precise conclusions relating to the decision on the actual conditions and can provide a comprehensive understanding of the behavior associated with the public in the face of regulation (Sniderman and Grob, 1996; Harrison and List, 2004). This study proves the FTT force in explaining the phenomenon of framing effect, where the information in the report can change expectations and the risk of one's judgment in making investment decisions.

2. Theoretical Framework and Hypothesis Development

It is commonly found that people prefer the sure option when the options are framed as gains and the risky option when they are framed as losses, even though the expected values for all the programs in Tversky and Kahneman (1981) are equivalent. The phenomenon is in contrast to a normative point of view that would indicate that if

respondents prefer the sure option in the positive frame, they should also favor the sure option in the negative frame.

The explanation for this effect according to FTT is that people will tend to operate on the most straightforward gist that is permitted to make a decision. In the case of this framing question, the gain frame presents a situation in which people prefer the essence of some people being saved to the possibility that some are saved, or no one could be saved and conversely, that the chance of some people dying or no one dying is preferable to the option that some people will surely die (Kuhberger and Tanner, 2010).

An analyst investment decision-making process based on information he obtained. The information received analysts often in large numbers and diverse. Therefore, the simplification process the information collected be crucial in making investment decisions. Investment decisions in question including the decision to make a recommendation buy/hold or sell the shares as would be done in this study, with a reference or anchor in the form of risk information is arranged in three different formats of risk reports.

Kühberger (1998) and Levin (1998) suggests that individuals react differently to the same decision if the problem shown differently. This phenomenon is referred to as framing. Framing also depends on the task, content, and context of the variables inherent in the choice of the problem. Framing consists of three types: standard risky choice, attribute framing, and goal framing. It is trying to be explained by Tversky and Kahneman (1981) using Prospect Theory although probably only useful for explaining risky choice framing effect.

When risk-averse behavior with positive framing is not too strong, the researchers found the opposite effect framing. Problems interpreted by the subject as something ambiguous, but the ambiguity is not related to the selection of subjects. These results are discussed within the framework of which explicitly separates the domain effect by framing effect. In FTT, an obvious choice is presented in the form of the information is not complete, so that decision-makers have the opportunity to specify other variables relevant to the problems likely.

The results Kahneman and Tversky (1979), Emby (1994), Chang et al. (2002) showed that based on the assumption that people behave rationally, which contains risk information that is positive and produces a certain level of gains will respond with a decision likely to not reduce the profits to be received. Decisions that have a tendency not to minimize the benefits is the decision that contains the smallest risk. Therefore, according to the FTT, when information is presented in a positive gain frame, it will result in someone thinking that they are in a safe position that resulted in their attempt to avoid the risk by taking less risky decisions or no risk (Chang et al., 2002).

Previous studies showed that the risk presented the report in full can give a signal and be able to influence the sensitivity of trading volume based on the level of stock market prices (Rajgopal, 1999; Roulstone, 1999; Linsmeier et al., 2002; Schrand, 1997). The format of the report is shown to have an equal value for investors. Information can be displayed in tabular form. This format can disclose information explicitly and become the best estimator for the uncertainty in the market and can reduce the bias on the rise in the price of securities (Hodder and McAnally, 2001; Linsmeier et al., 2002; Dietrich et al., 2001). Also, the company implemented informative disclosure policies to be followed by analysts in more significant quantities and lead analyst forecasts more precise. Informative disclosures will also reduce the difference between the estimates and mitigate the volatility of individual analyst forecast revisions by analysts (Lang and Lundolm, 1996).

H1. *The presentation of risk information stated with gain positive frame lead investment analyst to choose a less risky decision.*

Several studies related to the preparation of a rational decision states that humans are risk-averse (Kahneman and Tversky, 1979; Tversky and Kahneman, 1981; Quattrone and Tversky, 1988; Chang et al., 2002). Prospect Theory explains that when a person faced with a choice and its reference point is in the domain profits, then it will tend to be risk-averse, as described by the model of rational choice. However,

when someone is in a negative situation or a loss, they tend to choose the risky option, because failure will further result in a subjective value lower than success. Quattrone and Tversky (1988) in his study that examined the decision of voters in the election of the leader of the hypothetical candidates indicate when a person thinks of himself to be in the domain of losses due to the decline in economic conditions-then he will have a tendency to give support to the riskier candidate challenger or less known. Meanwhile, if they are in the domain profits, one will become more risk-averse, like things known better, safer and in the case of a hypothetical election in these studies is the candidate of the ruling.

Meanwhile, according to FTT, when the information is presented in a negative frame loss, it will lead to someone thinking that they are in a disadvantaged position which resulted in them making decisions of higher risk in the hope of obtaining a higher profit also improved conditions in the event the future (Chang et al., 2002).

H2. *The presentation of risk information stated by the negative loss frame lead investment analyst chose a risky decision.*

3. Research Method

This study will use a field experiment method. Experiments using 1 x 2 between-within subjects design (mixed design), with a completely randomized. The manipulated variable is the problem domain (gain-loss), with Tabular Format as anchor of risk information format. Table 1 shows the experimental design of this study in the form of criteria and treatment to be provided.

Criteria and treatment consist of a framing effect for risk reporting Tabular Format. While the investment decisions represent the dependent variable, buy/hold or sell the stock. The experiment asked participants to formulate investment decisions, with several choices of risk in the risk report submitted in the gain and loss frames. The investment decision is to buy/hold to sell their shares analysis report, which indicated the scale of 1 (strong buy) to 10 (strong sell). Participants were also asked to show the degree of confidence when preparing their investment decisions as a percentage, from very unsure (0%) to very confident (100%).

Table 1
Experiment Design

Risk Information Format	Frame & Problem Domain	
	Gain Frame	**Loss Frame**
Tabular Format (Qualitative only and Complete Form)	Based on the Tabular Format Risk Information, there is 1/3 probability all the money invested in shares will be saved, and 2/3 probability the money invested is not saved.	Based on the Tabular Format Risk Information, there is 1/3 probability that all money invested in shares will not lose, and 2/3 probability the funds spent will lose.

Participants in this research are 27 investment analysts. Investments analyst referred to in this study is a professional manager that manages a variety of securities or securities such as stocks, bonds, and other assets to achieve the target of profitable investment for investors, considering the level of risk attached to them. Investors will follow investment analyst selected as a participant for the information and the decisions of investment analysts to conduct buy/hold or sell certain shares.

This study also uses a manipulation check procedure to be followed by prospective participants after they attend the experiment. A manipulation check was drawn in the form of 5 (five) information statement bad news and good news, which has nothing to do with the analysis of a hypothetical company's financial information.

Participants in this experiment to get the reward as compensation for the time they take to keep this experiment. Rewards in the form of cash in the form of dollars on a simulation game buy/hold or sell shares in this research. The reward is given in the range of a certain amount, and the amount received by the participants' answers on the amount converted from simulation buy/hold or sell shares in this experiment. It is intended that the participant felt the presence of risk when they formulate investment decisions, because of every answer given affected the reward they receive.

Variables in this study consist of two independent variables and the dependent variable. The independent variable in this study is.

1. Format risk report. Format risk report in this study refers to the tabular format, which divided into two categories: qualitative only and complete form.
2. Framing. Framing concerned with how the facts or information disclosed (Tversky and Kahneman, 1979; 1981, Rutledge and Harrel, 1994). Framing in this study is in the form of gain positive and loss negative. These frames are chosen based FTT explanations that emphasize the emergence framing effect based on the problem domain (Chang et al., 2002).

The dependent variable in this study is an investment decision. Investment decisions are defined as decisions such as buy/hold or sell shares must be made by the participants. The decision is the result of the consideration of the financial information in the form of risk reports which have been obtained and analyzed. Measurement of investment decision based on the outcome of the completion of case studies undertaken by the participants. Decision-determination buys/hold will be rated at least 1 (strong buy) and will be rated up to 10 (strong sell) or semantic differential scale. Participants were also asked to give a prediction of whether the stock price that he had to rise or decline.

The hypothesis will be tested by using the Chi-square test. Chi-square test was used to test the proportion or frequency. The assumptions for chi-square include random sampling is not required, provided the sample is not biased; independent observations; and mutually exclusive row and column variable categories that cover all observations.

By Chi-square test can be determined whether the proportion or frequency in all cells tend to be similar or different. Chi-square test can be used for numerical data categorical sequential or non-sequential (ordinal or nominal). Chi-square test is a test to conduct estimation. As a Chi-square estimation tool used to assess whether there are significant differences between the observed frequencies with the expected frequencies. Expected frequency is often referred to as the frequency of the hypothetical because it is used as a hypothesis to be tested with the frequency obtained

from the study, the number of participants in this experiment.

4. Results and Disscusions

The study involved an investment analyst as study participants, which numbered 27 people and has passed the manipulation check procedure (Table 2). Participants who pass the criteria of the test manipulation check is they can answer correctly at least 3 cases presented in the procedure. By answering correctly at least 3 cases that showed the participants considered to understand each case relating to investment decision-making and give a serious answer to the end of the implementation of the experiment. Manipulation check procedure through which the participants are at the end of the implementation of the experiment.

The 27 participants involved in this study worked through material experimentation, so they are participants with between categories and within the subject.

Table 2
Demographic Participant Data

Annotation	Number of Participants	Percentage (%)
Research subjects/participants	**27**	
Gender:	27	100.0
• Man	24	88.8
• Woman	3	11.2
Age:		
• 20 to 30 years old	25	92.6
• 31 to 40 years old	2	7.4
Tenure:		
• 0 to 1 year	1	3.7
• 1 to 3 years	20	74.1
• 3 to 5 years	5	18.5
• More than 5 years	1	3.7
Stocks and financial reports were analyzed:		
• Companies in the banking industry category	15	55.6
• Companies in the manufacturing industry category	12	44.4

The First Hypothesis Testing

The first hypothesis tested in this study is the presentation of risk information in a tabular format represented by a positive gain frame would result in an investment analyst to choose a less risky decision. Tests carried out using Chi-square test. The data will be divided into three, where the answer to every option that is worth 1-4 to buy category, 5-6 for hold category, and 7-10 for the sell category. Each category on each option has different risk significance. Indicated by less risky decision-making buy or hold, and riskier by sell category. According to FTT, when the information is presented in a positive framing, it would result in a person thinks that they are in a favorable position or secure that result in less risky decisions.

When risk information is presented to gain positive frame in a qualitative form only, the data from 14 participants in Panel A, which chose risky decision (buy) 2 people or 14.29%, less risky (buy) 10 people or 71.43% and hold (including a less risky category) by 2 people or 14.29%. Meanwhile, if information is presented to gain positive frame in a complete form, the data from 14 participants in Panel A, which chose risky decision (buy) 1 people or 6.67%, less risky (buy) 11 people or 78.57% and hold (including a less risky category) by 2 people or 14.29%. (Table 3).

Table 3
Number and Percentage Choice Recommended by Participants and Chi-square Test

Experiments in Panel A_Gain Positive Frame

Format	**Participants who make recommendations on risk /sell decision (%)**	**Participants who make the less risky recommendation /buy decision (%)**	**Participants who make the less risky recommendation /hold decision (%)**	**Cross Tabulations**	
				Chi-square test	**Sig.**
Gain Positive Frame					
TbF_qualitative	2 (14.29)	10 (71.43)	2 (14.29)	**12.465**	**0.032**
TbF_complete	1 (6.67)	11 (78.57)	2 (14.29)		
Total	**14 (100)**				

The results of cross-tabulations for risk information are expressed by a positive gain frame on Chi-square test showed a Chi-square value of 12.465 and a significance of 0.032. Participants who received the information in a gain positive frame will make less risky decisions. Participants also feel the difference in the presentation of the information they receive relating to the completeness of the presentation of risk information, both while the risk information is presented just in a qualitative form or when the information is presented incomplete information. Although there are differences in the presentation format of risk information, investment decisions buy/hold or sell the shares was made by the majority of participants, the frequency of visits remained a less risky decision. These findings support the first hypothesis in this study.

Second Hypothesis Testing

The second hypothesis tested in this study is the presentation of risk information in a tabular format represented by a negative loss frame would result in an investment analyst to choose a risky decision. Tests carried out using Chi-square test. The data will be divided into three, where the answer to every option that is worth 1-4 to buy category, 5-6 for hold category, and 7-10 for the sell category. Each category on each option has different risk significance. Indicated by a less risky decision-making sell or hold, and riskier by buy category. According to FTT, when the information is presented in a negative framing, it would result in a person thinks that they are in an insecure position that results from more risky decisions (Chang et al., 2002).

When risk information is presented to loss negative frame in a qualitative form only, the data from 13 participants in Panel B, which chose risky decision (buy) 7 people or 53.85%, less risky (sell) 1 people or 7.69% and hold (including a less risky category) by 5 people or 38.46%. Meanwhile, if information is presented to loss negative frame in a complete form, the data from 13 participants in Panel B, which chose risky decision (buy) 6 people or 46.15%, less risky (sell) 2 people or 15.38% and hold (including a less risky category) by 5 people or 38.46% (Table 4).

Table 4.
Number and Percentage Choice Recommended by Participants and Chi-square Test Experiments in Panel B_Loss Negative Frame

Format	Participants who make recommendations on risk /buy decision (%)	Participants who make the less risky recommendation /sell decision (%)	Participants who make the less risky recommendation /hold decision (%)	Cross Tabulations	
				Chi-square test	Sig.
Loss_Negative Frame					
TbF_qualitative	7 (53.85)	1 (7.69)	5 (38.46)	**8.387**	**0.049**
TbF_complete	6 (46.15)	2 (15.38)	25(38.46)		
Total	**14 (100)**				

Participants who received the information in a negative loss frame will make less risky decisions. Negative loss frame on Chi-square test expresses the results of cross-tabulations for risk information showed Chi-square value of 8.387 and a significance of 0.049. It means that participants feel the difference in the presentation of the information they receive relating to the completeness of the presentation of risk information, both while the risk information is presented just in a qualitative form or when the information is presented incomplete information. Although there are differences in the presentation format of risk information, investment decisions buy/hold or sell the shares was made by the majority of participants, the frequency of visits remained a less risky decision. These findings support the second hypothesis in this study.

Based on statistical testing, the first and second hypotheses in this study are supported. The results mean that the participants in this study chose to perform actions that are not at risk when information is presented in a positive frame. This is consistent with FTT which are focusing testing on the frame problem. The findings in this study are also consistent with the conclusions of the study Kahneman and Tversky (1979), Emby (1994), and Chang et al. (2002) that show based on the assumption that people behave rationally, an information that positively involves risks will result from a certain level of gains that are sure to respond with a decision that has a tendency not to reduce the gains to be received. Decisions that have a tendency not to minimize the

profits is the decision that contains the smallest risk. Also, participants tend to take risky decisions when information is presented in a negative frame. The findings are consistent with the hypothesis in the framework of FTT that states decisions will be made one at risk when he was confronted on the information presented by the negative frame.

The results of this study fully support both of the hypotheses in the framework of FTT. FTT framework which is based on the assumption that the decision maker is risk seekers (Shiller, 1995; Quattrone and Tversky, 1988) at the time the information is presented in a negative frame. The attitude may result in a more daring to take risks in the preparation of investment decisions.

Another finding in this study shows that there are significant differences between the investment decisions made based on qualitative risk information only with investment decisions made based on complete risk information. Participants in this study give a different appreciation to the companies that reported the risk of a comprehensive report than companies that report only a qualitative risk only. Appreciation rise toward better. It indicated by the positive difference between investment decisions based on qualitative risk statements only with investment decisions based on complete or comprehensive risk reporting. This happens mainly at risk of information arranged in tabular format, and sensitivity analysis format. The results are consistent with the results of the study Rajgopal, 1999; Roulstone, 1999; Linsmeier et al., 2002; Schrand, 1997 which stated that the report presented to the full risk of influencing the sensitivity of trading volume based on the level of stock market prices. Additional quantitative information also increases the confidence of participants in formulating investment decisions.

5. Conclusion, Implications and Suggestions

This study tests on investment decisions based on risk information within the framework of verification Fuzzy Trace Theory (FTT). FTT assumes individuals prefer to use the simple reason that in the presentation of information and make a decision of the general conclusions presented (Reyna and Brainerd, 1991). A piece of information

had the same meaning but presented differently would raise the possibility of deciding to produce a reversal option.

The research was conducted by the method of an experiment involving 27 participants. Experiments carried out to test whether the risk information of different frame-sequential time given regarding the framing effect described through the framework of FTT-can affects investment decision-making process. The results showed that the participants in this study chose to perform actions that are not at risk when information is presented in a positive frame. Investment decisions which they set such decisions tend to avoid risk. This is consistent with FTT are focusing testing on the frame problem. FTT stated that no decision would be taken one at risk when he faced on the information presented in a positive frame.

The results were consistent with the findings in the study of Kahneman and Tversky (1979), Emby (1994), and Chang et al. (2002). Information involves risks that are positive and will result in a certain level of gains that are sure to respond with a decision that tends not to reduce the gains to be received. Decision-making under conditions of risk positively prefers risky decisions in order not to cut the profits that they already have.

Other findings obtained in this study in the form of the tendency of the experimental participants to take risky decisions when information is presented in a negative frame. The results are consistent with the hypothesis that the FTT framework states that decisions will be made one at risk when he was confronted on the information presented by the negative frame (Kahneman and Tversky, 1979; Chang et al., 2002).

Therefore, these findings imply that investors need to pay attention to the framing effect with caution because of a similar problem with a different frame choice may result in upside or a different decision. Also, because the information published by public companies is of interest to the user information, then set the information submitted by the company must be able to establish a positive value, regardless of the conditions being experienced by the company issuing the information.

This study has limitations. This study examined the impact of differences in

accounting information frame investment decisions. Frame the focus of the research, regardless of the content or the content of accounting information. Future studies can be done with experimental methods that take into account the influence of the substance of the information accounting for investment decisions.

References

Chang, C. Janie, Sin-Hui Yen, and Rong-Ruey Duh. 2002. An Empirical Examination of Competing Theories to Explain the Framing Effect in Accounting-Related Decisions. *Behavioral Research In Accounting 14*: 35-64.

Dietrich, J. Richard, Steven J. Kachelmeier, Don N. Kleinmuntz, and Thomas J. Linsmeier. 2001. Market Efficiency, Bounded Rationality, and Supplemental Business Reporting Disclosures. *Journal of Accounting Research*. Vol. 39, No. 2: 243-268.

Emby, Craig. 2004. Framing and Presentation Mode Effects in Professional Judgment: Auditors' Internal Control Judgments and Substantive Testing Decisions. *Auditing: A Journal of Practice & Theory.* Vol. 13, Supplement:124-127

Harrison, Glenn W., and John A. List. 2004. Field Experiments. *Journal of Economic Literature.*Vol. XLII: 1009-1055.

Hirshleifer, David, and Siew H. Teoh. 2002. Limited Attention, Information Disclosure, and Financial Reporting. *Working Paper.*

Hodder, Leslie and Mary L. McAnally. 2001. SEC Market-Risk Disclosures: Enhancing Comparability. *Financial Analysts Journal.* Vol. 57, No. 2: 62-78.

Kahneman, Daniel, and Amos Tversky. 1979. Prospect Theory: An Analysis of Decision Under Risk. *Econometrica 47 (2)*: 263-291.

Kühberger, Anton. 1998. The influence of framing on risky decisions: A meta-analysis. *Organizational Behavior and Human Decision Processes 75*: 23-55.

_____ . 1995. The Framing of Decisions: A New Look at Old Problems. *Organizational Behaviour and Human Decision Processes 32*: 230-240.

_____and. Carmen Tanner. 2010. Risky choice framing: Task versions and a comparison of prospect theory and fuzzy-trace theory. *Journal of Behavioral Decision Making.* Vol. 23, No. 3: 314–329.

Lang, Mark H. and Russel J. Lundholm. 1996. Corporate Disclosure Policy and Analyst Behavior. *The Accounting Review.* Vol. 71, No. 4: 467-492

Levin, Irwin P., Sandra L. Schneider, and Gary J. Gaeth. 1998. All frames are not created equal: A typology dan critical analysis of framing effects. *Organizational Behavior and Human Decision Processes 76*: 149-188.

Linsmeier, Thomas J., Daniel B. Thornton, Mohan Venkatachalam, and Michael Welker. 2002. The Effect of Mandated Market Risk Disclosures on Trading Volume Sensitivity to Interest Rate, Exchange Rate, and Commodity Prices Movements. *The Accounting Review*. Vol. 77, No. 2: 343-377.

Mills, B., Valerie F. Reyna, and Estrada, S. 2008. Explaining contradictory relations between risk perception and risk taking. *Psychological Science* 19: page. 429–33.

Nahartyo, Ertambang. 2012. Desain dan Implementasi Riset Eksperimen. Edisi 1, Oktober. UPP STIM YKPN. Yogyakarta.

Quattrone, George A. and Amos Tversky. 1988. Contrasting rational and psychological analyses of political choice. *American Political Science Review*. No. 82: 719-736.

Rajgopal, Shivaram. 1999. Early Evidence on the Informativeness of the SEC's Market Risk Disclosures: The Case of Commodity Price Risk Exposure of Oil and Gas Producers. *The Accounting Review*. Vol. 74, No. 3: 251-280.

Reyna, Valerie F., and Charles J. Brainerd. 1991. Fuzzy Trace theory and Framing Effects in Choice: Gist Extraction, Truncation, and conversion. *Journal of Behavioral Decision Making 4:* 249-262.

Roulstone, Darren T. 1999. Effect of SEC Financial Reporting Release No. 48 on Derivative and Market Risk Disclosures. *Accounting Horizons.* Vol. 13, No. 4: 343-363.

Rutledge. Robert W. and Adrian M. Harrell. 1994. The Impact of Responsibility and *Framing* of Budgetary Information on Group Shifts. *Behavioral Research in Accounting 6*:93-109.

Schrand, Catherine M. 1997. The Association between Stock-Price Interest Rate Sensitivity and Disclosures about Derivative Instruments. *The Accounting Review.* Vol. 72, No. 1: 87-109.

Shefrin, Hersh and Meir Statman. 1985. The Disposition to Sell Winners Too Early and Ride Losers Too Long: Theory and Evidence. *Journal of Finance.* Vol. 40: 777-790.

Shiller, Robert J. 1995. Conversation, Information, and Herd Behaviour. *American Economic Review.* Vol. 85: 181-185.

Sniderman, Paul M., and Douglas B. Grob. 1996. Innovations in Experimental Design in Attitude Surveys. *Annual Review of Sociology*, Vol. 22: 377-399.

Tversky, Amos and Daniel Kahneman. 1981. The *Framing* of Decision and The Psychology of Choice. *Science Volume 211(30)*: 453-458.

_____ . 1974. Judgment under uncertainty: Heuristics and biases. *Science.* No. 185, Vol. 4157: 1124-1131.

Wong, M.H. Franco. 2000. The Association between SFAS No. 119 Derivatives Disclosures

and the Foreign Exchange Risk Exposure of Manufacturing Firms. *Journal of Accounting Research.* Vol. 38, No.2: 387 – 417.

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